

**REMARKS/ARGUMENTS**

**Overview of the Office Action**

Claims 4 and 5 have been rejected by the Examiner under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 1, 2, 6, 8-15 and 17-20 have been rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by Brown et al. (U.S. Patent No. 5,673,403).

Claims 3-5 and 16 have been rejected by the Examiner under 35 U.S.C. § 103(a) as unpatentable over Brown in view of Ote et al. (U.S. Patent No. 5,367,628).

Claim 7 has been rejected by the Examiner under 35 U.S.C. § 103(a) as unpatentable over Brown in view of Brett (U.S. Patent No. 5,850,471).

**Status of the Claims/Amendments**

Claim 4 has been amended. Claims 1-20 are pending.

**Explanation of Amendments to the Claims**

In regard to Claim 4, this claim has been amended to provide a proper antecedent basis for the term "thumbnail images" as used therein, and thus this amendment is in no way intended to limit the scope of the claim in any way. It is Applicants explicit and stated intent that the amended claim retain the full scope and breath of claimed subject matter as the original claim, and nothing herein should be interpreted in any way to the contrary.

**Claims Rejected Under 35 U.S.C. § 112**

Claims 4 and 5 have been rejected by the Examiner under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner has noted that there is an insufficient antecedent basis for the term “thumbnail images” as used in Claim 4, upon which Claim 5 depends. In response, Applicants have amended Claim 4 to instead recite “one or more thumbnail images” in order to provide an adequate antecedent basis for this limitation. In light of this amendment, Applicants respectfully submit that the Examiner’s rejection of Claims 4 and 5 under 35 U.S.C. § 112, second paragraph, has been traversed.

**Claims Rejected Under 35 U.S.C. § 102(b)**

Claims 1, 2, 6, 8-15 and 17-20 have been rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by Brown et al. (U.S. Patent No. 5,673,403). However, in response, Applicants respectfully disagree with the Examiner’s conclusion that the invention of Brown includes each and every claim limitation present in Claims 1, 2, 6, 8-15 and 17-20 of the present Application.

The invention of Brown is directed to “[t]wo or more interconnected computer systems, each having a different operating system” wherein “the present invention includes at least two inter-connected computer systems, each having a different operating system running thereon” (Brown, Abstract, lines 1-7; col. 2, lines 10-12). In other words, the invention of Brown is directed to at least two operating systems, each of which is running directly on computer hardware. The invention of Brown also teaches a method by which a first operating system running on one computer system can provide a mere graphical user interface (GUI) for a second

operating system running on a second operating system. However, Brown nowhere discloses multiple *emulated* operating systems being emulated by one or more emulator programs running on a host operating system.

An emulated operating system is an operating system that does not run directly on physical computer hardware, but instead an emulated operating system, by definition, runs on virtual computer hardware that exists only as a software representation in a host operating system environment (which may run directly on physical computer system hardware or, alternately, be a guest operating system itself at a lower layer of abstraction). This “virtual machine” concept is described in the Specification of the present Application as follows:

To expand the number of operating systems and application programs that can run on a computer system, a field of technology has developed in which a given computer having one type of CPU, called a host, will include an emulator program that allows the host computer to emulate instructions of an unrelated type of CPU, called a guest. Thus, the host computer will execute an application that will cause one or more host instructions to be called in response to a given guest instruction. Thus, the host computer can both run software design[ed] for its own hardware architecture and software written for computers having an unrelated hardware architecture. ...

When a guest computer system is emulated on a host computer system, the guest computer system is said to be a virtual machine, as the host computer system exists only as a software representation of the operation of the hardware architecture of the guest computer system. The terms emulator and virtual machine are sometimes used interchangeably to denote the ability to mimic or emulate the hardware architecture of an entire computer system. ... An emulator program executing on the operating system software and hardware of the host computer...mimics the operation of the entire guest computer system. The

emulator program acts as an interchange between the hardware architecture of the host machine and the instructions transmitted by the software running within the emulated environment.

(Specification, page 2, line 13 to page 3, line 11).

In order to anticipate a claimed invention, a prior art reference must teach each and every element present in the claim. Brown does not teach multiple emulated operating systems for virtual machines being emulated by one or more emulator programs running on the host operating system, but instead Brown teaches only operating systems running directly on physical computer system hardware which, in turn, requires more than one physical computer system to accommodate the minimum of two operating systems required by Brown.

In contrast, independent Claim 1 of the present Application—upon which Claims 2 and 6 depend—discloses multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system, and thus the invention of Claim 1, as well as Claims 2 and 6, are patentably distinguishable from the invention of Brown since Brown fails to teach each and every element present in these claims.

Moreover, independent Claim 8—upon which Claims 9 and 10 depend—likewise discloses “multiple emulated virtual machines being emulated by one or more emulator programs running on the host operating system” (page 17, lines 12-14), and thus Claim 8, as well as claims 9 and 10, are patentably distinguishable from the invention of Brown since Brown fails to teach each and every element present in these claims for the same reasons set forth herein.

In addition, the invention of independent Claims 11 and 12—upon which dependent Claims 13-15 and 16-20 directly or indirectly depend—pertain to a “host computer system” and “multiple emulated computer systems” which, as disclosed in the Specification, comprise a host

operating system and emulated operating systems (page 2, line 27 through page 3, line 11) which, again, are limitations of said Claims that are not found in Brown. Thus Claims 11 and 12, as well as Claims 13-15 and 17-20, are also patentably distinguishable from the invention of Brown since Brown fails to teach each and every element present in these claims for the same reasons set forth herein.

Based on the foregoing analysis, Applicants respectfully submit that Brown fails to teach or suggest all the claim elements necessary to anticipate the present invention of Claims 1, 2, 6, 8-15 and 17-20 under 35 U.S.C. § 102(b). Applicants therefore respectfully request that these rejections be withdrawn and that Claims 1, 2, 6, 8-15 and 17-20 be allowed to issue.

**Claims Rejected Under 35 U.S.C. § 103(a)**

In order to establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally the prior art reference (or references when combined) must teach or suggest all the claim elements. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and cannot be based on applicant's disclosure. (MPEP §§ 2142, 2143.)

**Regarding Claims 3-5 and 16:**

Claims 3-5 and 16 have been rejected by the Examiner under 35 U.S.C. § 103(a) as unpatentable over Brown in view of Ote et al. (U.S. Patent No. 5,367,628).

In regard to the third criteria (that the prior art references or combination of references must teach or suggest all the claim elements), Applicants respectfully submit that nowhere does Brown or Ote, separately or in combination, teach or suggest, multiple emulated operating systems for virtual machines being emulated by one or more emulator programs running on the host operating system. In contrast, Claims 3-5, which directly or indirectly depend upon Claim 1 discussed earlier herein, discloses multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system which are limitations of said claims that are not found in Brown and Ote separately or in combination. Likewise, Claim 16, which indirectly depends on Claim 11 as discussed earlier herein, discloses a “host computer system” and “multiple emulated computer systems” which, as disclosed in the Specification and discussed earlier herein, comprise a host operating system and emulated operating systems (page 2, line 27 through page 3, line 11) which, again, are limitations of said claim that are not found in Brown and Ote separately or in combination.

Since neither Brown nor Ote, separately or in combination, suggest or teach multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system—and thus fail to teach or suggest all the claim elements of the present invention—Applicants therefore request that the rejection against Claims 3-5 and 16 under 35 U.S.C. § 103(a) be withdrawn and that these claims be allowed to issue.

**Regarding Claim 7:**

Claim 7 has been rejected by the Examiner under 35 U.S.C. § 103(a) as unpatentable over Brown in view of Brett (U.S. Patent No. 5,850,471).

In regard to the third criteria (that the prior art references or combination of references must teach or suggest all the claim elements), Applicants respectfully submit that nowhere does Brown or Brett, separately or in combination, suggest or teach a host operating system suitable for displaying a graphical user interface and multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system. In contrast, Claim 7, which depends upon Claim 1 discussed earlier herein, comprises multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system.

Since neither Brown nor Brett, separately or in combination, suggest or teach a host operating system suitable for displaying a graphical user interface and multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system—and thus fail to teach or suggest all the claim elements of the invention disclosed in Claim 7—Applicants therefore request that the rejection of Claim 7 under 35 U.S.C. § 103(a) be withdrawn and that this claim be allowed to issue.

**Related Administrative Matters**

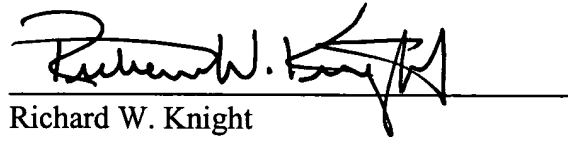
Applicants note that the Examiner has not yet acknowledged the Information Disclosure Statement filed in this case on March 6, 2002. Applicants respectfully request the Examiner to consider these references and provide Applicants with an appropriate Form 1449 to indicate that these references have in fact been considered.

**CONCLUSION**

Based on the reasons and rationale set forth herein, Applicants respectfully submit that the objections and rejections have been overcome and, accordingly, Applicants request that the objections and rejections be withdrawn and that the claims be allowed to issue. Should the Examiner have any questions, comments, or suggestions that would expedite the prosecution of the present case to allowance, Applicants' undersigned representative earnestly requests a telephone conference at (206) 332-1394.

Respectfully submitted,

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